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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

POWERS, WILLIAM S

ART UNIT

PAPER NUMBER

2134

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/727,164	Applicant(s) WALMSLEY, SIMON ROBERT	
	Examiner WILLIAM S. POWERS	Art Unit 2134	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 February 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 2-7 and 15-18 is/are pending in the application.
- 4a) Of the above claim(s) 1 and 11-14 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 2-7 and 15-18 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 05 May 2004 is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION***Response to Arguments***

1. As to Applicant's argument that "the memory lock process disclosed by Serizawa is only performed once successful updating of toner values within the non-volatile memory reaches a threshold ink value, so as to prevent re-updating ... [and] is clearly different than the method of the claimed invention" (Remarks, page 8, lines 10-14), the Examiner respectfully disagrees. The claims are viewed in light of the broadest reasonable interpretation of the limitations contained within the claims. As indicated by the Applicant, the invention of Serizawa prevents the updating of toner values under certain conditions (e.g. a threshold ink value is passed), Remarks, page 8, lines 10-12). There is nothing in the claim language that prohibits the conditional constraints of Serizawa. The added limitations of the claims are addressed below. For at least the reasons above, the rejections of the claims is maintained.

2. As to Applicant's argument that, "in the claimed invention the second message/write does not update any data values within the target entity rather it prevents an updating write from being successful" (Remarks, page 8, lines 17-19), the Examiner respectfully disagrees. The features upon which applicant relies (i.e., "2nd message/write does not update any data values") are not recited in the rejected claim(s). The limitations of claim 2 recite, "sending a second message to the target entity, the second message being configured **to cause the entity to update the first and second security fields** (claim 2 as amended,

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lines 5-6) (emphasis added). It appears that the Applicant is asserting that the second message, if sent, does not update the first and second security fields; it only places a write lock on the first and second security fields. Clearly, from the claim language, this is not the case. The second message, if sent, updates security values and prevents the security fields from further updates and as such the Official Notice of the prior Office Action still applies to the limitations of the claims as amended. For at least the reasons above, the rejections of the claims is maintained.

Response to Amendment

3. The Examiner has stated the below column and line numbers as examples. All columns and line numbers in the reference and the figures are relevant material and Applicant should be taken the entire reference into consideration upon the reply to this Office Action.
4. Claims 1 and 11-14 have been withdrawn.
5. Claims 8-10 have been cancelled.
6. Claims 2, 3, 16 and 17 have been amended.
7. Claims 2-7 and 15-18 are pending.

Specification

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8. In light of Applicant's amendments to the Specification, the previous objections to the Specification have been withdrawn.
9. The lengthy specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

Claim Objections

10. In light of the Applicant's amendments, the previous objection to claim 16 has been withdrawn.

Claim Rejections - 35 USC § 112

11. In light of the Applicant's amendments, the previous 35 USC 112, 2nd paragraph rejections of claims 2-10 and 15-18 have been withdrawn.

Claim Rejections - 35 USC § 103

12. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which

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said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

13. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

14. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

15. Claims 2-7 and 15-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent No. 7,031,012 to Serizawa in view of US Patent No. 5,315, 635 to Kane et al. (hereinafter Kane).

As to claim 2, Serizawa teaches:

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- a. Sending a first message to the target entity, the first message being configured to cause the entity to perform an action and to update the first and second security fields (the amount of toner is written to address No. 5 (an action), service life expiration is written to address No. 6 and a memory lock is written to address No. 8 (security fields)) (Serizawa, column 7, lines 19-28).
- b. Sending a second message to the target entity, the second message being configured to cause the entity to update the first and second security fields (once a memory lock has occurred, any subsequent command or message to write to the memory is prohibited) (Serizawa, column 7, lines 1-9).
- c. Wherein in the security field have write restrictions associated with them such that updating the security fields in accordance with the first message prevents subsequent updating of the security fields in accordance with the second message , and wherein updating the security fields in accordance with the second message prevents subsequent updating of the security fields with the first message, and wherein the first action is only performed when updating the security fields by the first message is successful (Serizawa, column 7, lines 1-29).

Serizawa does not expressly mention only sending the second message if the first message is unsuccessful. However, in an analogous art, Kane teaches the second message is only sent when sending of the first message is unsuccessful

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(determining that a message was not received and requesting the re-sending of the un-received message) (Kane, col. 7, lines 9-63).

Therefore, one of ordinary skill in the art at the time the invention was made would have been motivated to implement the printing apparatus that controls write messages of Serizawa with the message control system of Kane in order to ensure that message are reliability as suggested by Kane (Kane, col. 7, lines 28-35).

As to claim 3, Serizawa teaches:

- a. Each of the first and second security fields has a monotonically changeable write restriction associated with it (address Nos. 7 and 8 have write restrictions associated with them) (Serizawa, column 6, lines 9-21).
- b. The first attempted write included a first data value for the data field and first and second security values for the first and second security fields respectively (commands include the amount of toner left in cartridge and the service life of the cartridge) (Serizawa, column 6, lines 27-40).
- c. The method including the step of sending a second write to the target entity, the second write including third and fourth security values for the first and second security fields respectively, wherein the write restrictions are such that application of the third and fourth security values to the first and second fields are mutually incompatible with application of the first and second security values to the first and second security fields, such that if any of the fields cannot be written to, none of them are written

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to (once a memory lock has occurred, any subsequent command or message to write to the memory is prohibited) (Serizawa, column 7, lines 1-29).

Serizawa does not expressly mention only sending the second message if the first message is unsuccessful. However, in an analogous art, Kane teaches the second message is only sent when sending of the first message is unsuccessful (determining that a message was not received and requesting the re-sending of the un-received message) (Kane, col. 7, lines 9-63).

Therefore, one of ordinary skill in the art at the time the invention was made would have been motivated to implement the printing apparatus that controls write messages of Serizawa with the message control system of Kane in order to ensure that message are reliability as suggested by Kane (Kane, col. 7, lines 28-35).

As to claim 4, Serizawa as modified teaches:

- a. Prevent the second write from being performed if the event that the first write was previously performed (once a memory lock has occurred, any subsequent command or message to write to the memory is prohibited) (Serizawa, column 7, lines 1-29).
- b. Prevent the first write from subsequently being performed in the event that the second write is performed (once a memory lock has occurred, any subsequent command or message to write to the memory is prohibited) (Serizawa, column 7, lines 1-29).

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As to claims 5-7, Serizawa as modified teaches that the second message is only sent after the first message is determined to not have been delivered (when a message is not received a notification is sent to the sending unit and the message is re-transmitted) (Kane, col. 7, lines 9-63).

As to claim 15, Serizawa as modified teaches the target entity is a first integrated circuit and the messages are sent by a second integrated circuit (printer engine controller and non-volatile memory on toner cartridge) (Serizawa, column 4, line 66-column 5, line 44).

As to claim 16, Serizawa as modified teaches the second integrated circuit is a printer controller (engine controller) ((Serizawa, column 4, line 66-column 5, line 44).

As to claim 17, Serizawa as modified teaches the first integrated circuit is installed in a cartridge that is releasably attachable to a printer in which the printer controller is installed, such that the messages can be sent via a communications link between the printer controller and cartridge (the toner cartridge has a non-volatile memory that is in communication with the printer engine controller) (Serizawa, column 4, line 66-column 5, line 44).

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As to claim 18, Serizawa as modified teaches the data field stores an indicator of ink remaining in the cartridge (non-volatile memory of the toner cartridge has (Serizawa, column 4, line 66-column 5, line 44).

Conclusion

16. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to WILLIAM S. POWERS whose telephone number is (571)272-8573. The examiner can normally be reached on m-f 7:30-5:00.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kambiz Zand can be reached on 571 272 3811. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/W. S. P./
Examiner, Art Unit 2134

William S. Powers
Examiner
Art Unit 2134

5/26/2008

/Kambiz Zand/
Supervisory Patent Examiner, Art Unit 2134